Serial No. 10/074,765

REMARKS

By this amendment, claims 1-23 are pending, in which no claim is canceled, withdrawn, currently amended or newly presented.

The Office Action mailed September 14, 2005 rejected claims 1-3, 5, 7, 12, 14 and 16-23 under 35 U.S.C. § 102 as anticipated by *Gonzales* (US 5,414,469), claims 1-3, 11-14 and 16-23 under 35 U.S.C. § 102 as anticipated by *Wu et al.* (US 6,700,933), claims 4 and 16 as obvious under 35 U.S.C. § 103 based on *Wu et al.* in view of *Camahan* (US 5,414,780), claims 6, 7 and 16 as obvious under 35 U.S.C. § 103 based on *Wu et al.* in view of *Kato et al.* (US 5,719,986), claims 8 and 16 as obvious under 35 U.S.C. § 103 based on *Wu et al.* in view of *Weinberger et al.* (US 5,680,129), and claims 9 and 10 as obvious under 35 U.S.C. § 103 based on *Wu et al.* in view of *Weinberger et al.* (US 5,680,129), and claims 9 and 10 as obvious under 35 U.S.C. § 103 based on *Wu et al.* in view of *Moroney et al.* (US 5,771,239).

Applicants respectfully traverse the outstanding rejections on the merits, because in Applicants' view the claimed invention patentably defines over the applied prior art, as next discussed.

Independent claims 1 and 17 recite grouping "video frames that are only between consecutive I-frames into a video data set." Claim 19 recites "grouping video frames that are only between two consecutive I-frames into a video data set." Claim 22 recites "grouping video frames of the video signal that are only between consecutive I-frames into a video data set." Claim 21 recites "splitting the video data set consisting of non-intra video frames into a plurality of data sequences."

Presumably, to satisfy the above features, the Office Action, on page 3, argues that "means for grouping video frames that are between consecutive I-frames into a video data set as a plurality of data sequences" is taught by *Gonzales*, citing to col. 3 and FIG. 1. The Examiner's analysis is incorrect. In particular, Applicants notes that the Examiner has conveniently ignored the claim term "only" in the phrase "only between consecutive I-frames." Dismissing the term "only" permits the Examiner to equate GOP n and GOP n+1 of FIG. 1 as

Serial No. 10/074.765

the claimed grouping of video frames. *Gonzales* clearly states within col. 3: 43-44 that "each GOP must start with an I-picture and additional I-pictures can appear within the GOP."

Therefore, multiple I-pictures can exist within a GOP. The disclosure is inconsistent with the Examiner's interpretation that GOP n and GOP n+1 are the claimed groupings. Simply because different GOPs are utilized in *Gonzales* does not necessarily suggest "grouping video frames that are **only between consecutive I-frames.**" The reference does not go so far as to indicate that pictures within the GOP n and GOP n+1 can be grouped in the manner claimed.

As for independent claim 21, this claim recites "video data set consisting of non-intra video frames." The Examiner does not address these features at all. Further, Applicants submit that the teachings of *Gonzales* fails to meet such features, as the GOP n and GOP n+1 groups cannot technically include non-intra video frames.

As anticipation under 35 U.S.C. § 102 requires that each and every element of the claim be disclosed in a prior art reference, based on the foregoing, it is clear that *Gonzales* fails to teach or otherwise disclose "grouping video frames that are **only between consecutive I-frames.**" Therefore, the anticipation rejection over *Gonzales* should be withdrawn.

With respect to the anticipation rejection of claims 1-3, 11-14 and 16-23 over the newly applied reference of *Wu et al.*, Applicants respectfully disagree with the Examiner's interpretation regarding the claimed feature of "grouping video frames that are **only between consecutive I-frames."** To support the rejection, the Office Action, on page 4, refers to steps 150, 152, 154 and 158 of FIG. 8 of *Wu et al. Wu et al.* discloses (col. 9: 11-27) the operation of the server-side encoder 80 as follows (Emphasis Added):

At step 150, the encoder 80 encodes each macroblock in a reference or Intraframe (or "I-frame") into different layers. With reference to FIG. 4, suppose that frame 1 is an I-frame, and the encoder 80 forms the base and three enhancement layers 102-108. At step 152, the encoder 80 encodes each predicted frame (or "P-frame") into different layers. Suppose that frame 2 is a P-frame. The encoder 80 encodes the base layer 102 of frame 2 according to conventional techniques and encodes the enhancement layers 104-108 of frame 2 according to the relationship L mod N=i mod M.

At step 154, the encoder evaluates whether there are any more P-frames in the group of P-frames (GOP). If there are (i.e., the "yes" branch from step 154), the

Serial No. 10/074,765

next P-frame is encoded in the same manner. Otherwise, all P-frames for a group have been encoded (step 156).

The process continues until all I-frames and P-frames have been encoded, as represented by the decision step 158.

The above passage is completely silent on the feature of "grouping video frames that are **only between consecutive I-frames into a video data set.**" *Wu et al.* discloses a system that encodes each macro block (MB) in an I-frame and encodes each P-frame within a GOP into multiple layers to produce video data of varying degrees of quality. This process is completely unrelated to the claimed feature.

Again, with respect to independent claim 21 (which recites "video data set consisting of non-intra video frames"), the Examiner fails to address the claimed features. Understandably, no disclosure of such features exist within *Wu et al.*

Regarding the obviousness rejections, the additions of *Carnahan et al.*, *Kato et al.*, *Weinberger et al.*, and *Moroney et al.* do not fill in the gaps of the newly applied reference of *Wu et al. Carnahan et al.* is applied for a supposed teaching of motion components. *Kato et al.* is relied upon for a supposed disclosure of storing mode 3 B-frame components. *Weinberger et al.* is applied for a supposed teaching of mapping negative values. The Office Action relies on *Moroney et al.* for a supposed teaching of use of YK algorithm.

Furthermore, with respect to the obviousness rejection of claims 4 and 16, the Office Action (on page 6) asserts that *Wu et al.* teaches "splitting video serial [sic] into panels and storing the B components and P components in separate files (Frame Reordering delay 215 of fig. 2) but not include [sic] storing mode information of the video data set and motion components that includes storing horizontal components of the video data set and vertical components of the video data set in separate files as claimed." Upon close examination of *Wu et al.* ('933), there is no disclose of a frame reordering delay 215 within FIG. 2. However, *Wu* (US 6,731,684) teaches a frame reordering delay 215. Therefore, Applicants assume that the Examiner intends to apply *Wu* ('684) as in the Office Action dated April 15, 2005 rather than *Wu*

Serial No. 10/074,765

et al. ('933); accordingly, Applicants maintain the corresponding argument provided in Applicants' prior Response. The gist of this argument is that the P/B Frame Reordering Delay 215 and the Motion Estimation Stage 220 cannot split the claimed video data set (even assuming, arguendo, that the preprocessing stage 205 can properly group "video frames that are only between consecutive I-frames" into the video data set).

Accordingly, independent claims 1, 17, 19, 21 and 22 should be indicated as allowable, along with claims 2-16, 18, 20 and 23 depending correspondingly therefrom.

Therefore, the present application, as amended, overcomes the rejections of record and is in condition for allowance. Favorable consideration of this application is respectfully requested. If any unresolved issues remain, it is respectfully requested that the Examiner telephone the undersigned attorney at (310) 964-4615 so that such issues may be resolved as expeditiously as possible. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,

Georgaph S. Grunebach Attorney for Applicant Registration No. 33179

December 14, 2005

The DIRECTV Group, Inc. RE/R11/A109 2250 E. Imperial Highway P. O. Box 956 El Segundo CA 90245

Telephone No. (310) 964-4615